



## National Security

We continue to apply our capabilities to serve the Laboratory's Nuclear Weapons and Threat Reduction programs. Our major focus is on developing seismic and infrasound technologies, as they apply to nuclear explosion monitoring. We are developing new methods and tools for reliably locating earthquakes and for discriminating earthquakes from explosions using regional seismic and infrasound waveforms. Our results, along with those of universities and private contractors, are being integrated into a massive Knowledge Base that will be used by the Air Force Technical Applications Center (AFTAC) to fulfill its mission to monitor the globe for occurrence of nuclear explosions. Our nuclear weapons work is focused on supporting the subcritical underground tests at the Nevada Test Site and maintaining our capability to assure containment of full-scale underground nuclear tests. EES continues to participate in and benefit from the ASCI and DELPHI high-performance computing infrastructure that the Laboratory is building in conjunction with the Nuclear Weapons Program. Future opportunities appear to be growing in the areas of characterizing and defeating deeply buried underground targets, supporting information and technology acquisition, and meeting the needs of the intelligence community.